Adenomatosis of the Common Hepatic Duct

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Abstract

Benign mucosal tumors of the bile ducts are extremely uncommon, as most neoplasias in this area represent advanced neoplasias, most commonly cholangiocellular carcinomas. The case of a 78-year-old man with an extensive adenoma at bifurcation has been demonstrated. Evaluation of this lesion was performed with endoscopic retrograde cholangopancreatography, cholangioscopy, and intraductal ultrasound. This article is part of an expert video encyclopedia.

Keywords

Adenomatosis; Cholangioscopy; Endoscopic retrograde cholangiopancreatography; Endoscopic ultrasound; Intraductal ultrasound; Neoplasia; Video.

Video Related to this Article

Video available to view or download at doi:10.1016/S2212-0971(13)70189-4

Technique

Endoscopic retrograde cholangopancreatography (ERCP), mother–baby cholangioscopy, intraductal ultrasound.

Materials

Endoscope:

- Duodenoscope: ED 3440 TK, Pentax, Tokyo, Japan.
- Cholangioscope: Polyscope, Polydiagnost, Pfafenhofen, Germany.
- Intraductal ultrasound: Miniprobe 20 M, Hitachi Medical Systems, Japan.

Accessories:

- Guide wire: Cook Medical, Winston-Salem, NC, USA.

Background and Endoscopic Procedure

Benign mucosal tumors of the bile ducts are extremely uncommon, as most neoplasias in this area represent advanced neoplasias, most commonly cholangiocellular carcinomas.

A 78-year-old man presented for pain in the mid-epigastric area and obstructive painless jaundice. An endoscopic retrograde cholangiogram (ERC) revealed a filling defect at the level of the bifurcation of right and left intrahepatic ducts. To clarify the etiology of this suspicious finding, a cholangioscopy with a polyscope cholangioscope equipped with a fiber optic (10.000 pixels) is performed. After placement of a guide wire into the left hepatic duct, the cholangioscope is advanced over the guide wire in the common bile duct. At the bifurcation a polypoid adenomatous mass is visualized. The stenosis is passed with some effort and the device is advanced into the left hepatic duct. On withdrawal of the cholangioscope the flat villous lesion with a polipoid distal portion is visualized. The macroscopic appearance of the lesion is characteristic for a villous adenoma that might even harbor an advanced neoplasia. However, the lack of contact vulnerability and neovascularization argue against a malign transformation at this point.

In a next step an intraductal ultrasound is performed with a 20-MHz transducer to evaluate the nature and invasion depth of the lesion. The polipoid mass can be clearly visualized and respects all layers of the ductal wall, suggesting a noninvasive lesion. Next to the bile duct the cystic duct can be identified.

The ultrasound-based diagnosis of an adenomatous noninfiltrating mass is in accordance with the evaluation of the biopsy samples, which revealed a benign villous adenoma. The patient was considered unfit for surgery because of cardiac and pulmonary comorbidity. Therefore photodynamic therapy with foscane was initiated.

Key Learning Points/Tips and Tricks

- Cholangioscopy enables differentiation of benign and malignant intraductal lesions by direct endoscopic visualization and by targeted biopsy sampling.
- Intraductal ultrasound might provide additional information concerning the local infiltration depth.

Scripted Voiceover

A 78-year-old man presented for painless jaundice. ERC revealed a suspicious filling defect at the level of the bifurcation and cholangioscopy is performed for further evaluation.

After placement of a guide wire into the left bile duct the cholangioscope is advanced over the guide wire. At the

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bifurcation the cause of the obstruction was seen: it is a large polypoid adenomatous mass.

The stenosis is passed with some effort and the device is advanced into the left hepatic duct. On withdrawal of the cholangioscope, the whole extent of villous lesion is visualized. Although the proximal portion is flat and villous, the distal portion is polipoid.

In a next step an intraductal ultrasound is performed to evaluate the dignity and invasion depth of the lesion. The polipoid mass can be clearly visualized. The tumor respects all layers of the ductal wall, suggesting a noninvasive lesion. On slow withdrawal of the probe the cystic duct can be identified at the 12 o'clock position next to the common hepatic duct. At the 5 o'clock position the gall bladder with some small stones is visualized. The ultrasound-based diagnosis of an adenomatous noninfiltrating mass is in accordance with the histological diagnosis based on biopsy samples, which revealed a benign villous adenoma.